Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte CLYDE N. RICHARDS

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Appeal No. 1998-1981
Application No. 08/695,899

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HEARD: November 14, 2000

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Before BARRETT, FLEMING, and BARRY, Administrative Patent Judges.

FLEMING, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 through 16, all the claims pending in the present application.

The invention relates to high voltage insulators. In

particular, the invention relates to high voltage insulators that are designed to reduce or eliminate corrosion and erosion effects associated with current leakage and corona discharge effects.

Independent claim 1 is reproduced as follows:

1. Insulator terminator device, for use with a high voltage power line insulator having a plurality of rainsheds projecting from the sides thereof and having a lower end fitting below the lowermost of said rain sheds, said insulator terminator device comprising:

(a) volume current conveyance means, connected to a portion of said insulator between said lowermost rain shed and said lower end fitting, for conveying a volume current from said portion of said insulator, through said volume current conveyance means, and for avoiding high electric field strengths in said means and on said portion of said insulator; and

(b) surface current conduction and strength means, surrounding and connected to a portion of said volume current conveyance means, and connected to said lower end fitting, for conveying a surface current through said surface current conveyance means from said volume current conveyance means to said lower end fitting, and for avoiding high electric field strengths in the vicinity of said surface current conduction and strength means; and for providing mechanical strength for support of said volume current conveyance means.

The Examiner relies on the following references:

Ette	909,569	Jan. 12, 1909
Hawley	2,023,808	Dec. 10, 1935
Hirayama	3,791,859	Feb. 12, 1974
Tsuzuki et al. (Tsuzuki)	3,798,351	Mar. 19, 1974

Claims 9 and 10 stand rejected under 35 U.S.C. § 102 as being anticipated by Tsuzuki.

Claims 1 through 3, 7 and 8 stand rejected under 35 U.S.C.
§ 103 as being unpatentable over Tsuzuki in view of Hawley.

Claims 4 and 5 stand rejected under 35 U.S.C. § 103 as being unpatentable over Tsuzuki, Hawley and Ette.

Claim 6 stands rejected under 35 U.S.C. § 103 as being unpatentable over Tsuzuki, Hawley and Hirayama.

Claims 11, 15 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Tsuzuki.

Claims 12 and 13 stand rejected under 35 U.S.C. § 103 as being unpatentable over Tsuzuki and Ette.

Claim 14 stands rejected under 35 U.S.C. § 103 as being unpatentable over Tsuzuki and Hirayama.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the briefs[1] and answer for the

[1] Appellant filed an appeal brief on February 2, 1998. Appellant filed a reply brief on March 24, 1998. On April 14, 1998, the Examiner mailed an office communication stating that the reply brief has been entered and considered, but no

respective details thereof.

OPINION

We will not sustain the rejection of claims 9 and 10 under 35 U.S.C. § 102, nor will we sustain the rejection of claims 1 through 8 and 11 through 16 under 35 U.S.C. § 103.

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. ***See In re King***, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and ***Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.,*** 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

On pages 23 and 24 of the brief, Appellant argues that Tsuzuki fails to teach a volume current conveyance means and a surface current conduction and strength means as recited in Appellant's claim 9. In the Examiner's Answer, the Examiner states that Tsuzuki discloses a volume current conveyance means, coating (4), and a surface current conduction and strength means layer (9).

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further response by the Examiner is deemed necessary.

We note that Appellant's claim 9 recites "[a] volume current conveyance means . . . for conveying a volume current from said portion of said insulator, through said volume current conveyance means, and for avoiding high electric field strengths in said means and on said portion of said insulator." We note that Appellant's Fig. 1 shows the volume current conveyance means as Element **12**. See pages 4 and 5 of Appellant's specification.

We note that in column 2, lines 63 and 64, Tsuzuki teaches that Element **4** is a semi-conducting glaze. Furthermore, we note in column 3, lines 8 through 11, that Tsuzuki teaches that the Figure shows the thickness of the semi-conducting glaze **4** on an enlarged scale. Thus, the semi-conducting glaze **4** shown in the Figure has a very small thickness. From this disclosure and from the Figure, we fail to find that this semi-conducting glaze **4** which has a very thin thickness meets the Appellant's claimed volume current conveyance means because the semi-conducting glaze **4** is unable to convey a volume current from the said insulator. Furthermore, the semi-conducting glaze **4** is not

able to avoid high electric field strengths in the semi-conducting glaze on said portion of said insulator.

Appellant's claim 9 further recites "[a] surface current conduction and strength means . . . for providing mechanical strength for support of said volume current conveyance means." In the Examiner's Answer, the Examiner states that Tsuzuki teaches a surface current conduction and strength means as shown as Element **9** in the Tsuzuki Figure.

Turning to Tsuzuki, we note that in column 3, lines 8 through 11, Tsuzuki teaches that the thickness of the alloy portion **9** is shown on an enlarged scale in the Figure. Furthermore, Tsuzuki teaches in column 3, lines 12 through 16 that the low melting point alloy portion **9** may be formed by melt- spray or metallized on the semi-conducting glaze **4**. Thus, Tsuzuki teaches that Element **9** is a very thin foil applied over the semi-conducting glaze **4**. Therefore, we fail to find that the Element **9** provides any mechanical strength for support of the volume current conveyance means.

Therefore, we fail to find that Tsuzuki teaches all of the elements as recited in Appellant's claim 9. Therefore, we

will not sustain the rejection of claim 9 or dependent claim 10 for the reasons set forth above.

In regard to the rejections under 35 U.S.C. § 103, the Examiner has failed to set forth a ***prima facie*** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. ***In re Sernaker,*** 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." ***Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.,*** 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), ***cert. denied,*** 519 U.S. 822 (1996), ***citing W. L. Gore & Assoc., Inc. v. Garlock, Inc.,*** 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), ***cert. denied,*** 469 U.S. 851 (1984).

We note that the Examiner for these rejections, is relying on Tsuzuki in the same matter as above in that Tsuzuki

teaches a volume current conveyance means as shown as Element **4** and a surface current conduction and strength means shown as Element **9**. For the same reasons as we set forth above, we will not sustain the rejections of claims 1 through 8, and 11 through 16.

In view of the foregoing, we have not sustained the rejection of claims 9 and 10 under 35 U.S.C. § 102. In addition, we have not sustained the rejection of claims 1 through 8 and 11 through 16 under 35 U.S.C. § 103.

Accordingly, the examiner's decision is reversed.

REVERSED

LEE E. BARRETT Administrative Patent Judge	)	
MICHAEL R. FLEMING Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
LANCE LEONARD BARRY Administrative Patent Judge	)	

MRF:lmb

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